Appendices

I. **Parking Study and Recommendations**
II. **Community Heritage District Survey**
III. **Housing Interview and Background**
IV. **Outreach Summary**

Note: Supporting Background Information is contained in a separate Resource Document. Included in this document are a Business District Plan, Garden Streets Concept, Zoning Background Information, Conservation District *Background Information and Outreach Materials.*

I. Pike/Pine Parking Study and Recommendations

PIKE/PINE NEIGHBORHOOD

PARKING STUDY AND RECOMMENDATIONS

OCTOBER 1998

HEFFRON
TRANSPORTATION

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EXECUTIVE SUMMARY

Heffron Transportation was retained to perform a parking study of the Pike/Pine Urban Neighborhood Center. The study's recommendations will be incorporated into the neighborhood plan and its validation process. The recommendations were derived after evaluating the existing city policies related to parking, and collecting data about the existing neighborhood parking supply and demand characteristics.

The recommendations include: on-street parking measures, off-street parking measures, land-use code revisions, and programs to encourage non-automobile modes of travel. The following lists the recommendations for each of these categories.

On-Street Parking Recommendations

1. Add on-street parking spaces where possible.
2. Support bus zone consolidation.
3. Reduce time limits for signed on-street parking within one-half block of commercial areas.
4. Add new parking meters.
5. Decrease metered parking duration limits.
6. Institute Residential Parking Zone (RPZ) on streets west of Harvard Avenue.
7. Extend meter operating hours to 9:00 P.M.
8. Institute meter revenue sharing with neighborhood.
9. Establish differential parking fines that are appropriate for various neighborhoods.
10. Increase enforcement.
11. Consolidate and/or relocate loading zones.
12. Prepare information packet regarding various on-street parking options.

Off-Street Parking Management Options

1. Reduce parking rates for short-term parking.
2. Improve signage to off-street lots.
3. Provide valet parking.
4. Validate parking for off-street parking lots.
5. Support expansion of the Seattle Central Community College (SCCC) parking garage.
6. Promote public use of SCCC parking garage during the school's off-peak parking hours.
7. Encourage replacement of public parking spaces when surface parking lots are redeveloped.
8. Share available parking in private parking lots.
9. Market all parking management improvements

Parking Code/Policy Revisions

1. Allow off-site parking for residential uses in Lowrise and Midrise zones
2. Allow "shared parking" for residential uses in Lowrise and Midrise zones
3. Increase the allowable distances between shared parking locations
4. Establish parking requirements that are appropriate for the Pike/Pine neighborhood

Options to Encourage Non-Automobile Modes of Transportation

1. Support transportation demand management
2. Implement "car sharing" program
3. Improve access to rental cars
4. Improve transit service
5. Improve/increase parking for bicycles
6. Extend the Metro Transit ride-free zone up to Broadway

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INTRODUCTION

This parking study for the Pike/Pine Urban Neighborhood Center was performed as an extension of the neighborhood planning process. The study's recommendations will be incorporated into the neighborhood plan and its validation process. In addition to the recommendations, information about existing city policies related to parking as well as neighborhood parking supply and demand data are incorporated into this report. The recommendations were developed to address existing and potential future issues related to parking in the Pike/Pine neighborhood.

Study Approach

Heffron Transportation was retained by the Pike/Pine Planning Committee to perform a parking study of the neighborhood. The study was to develop solutions for various parking issues. At the same time, Heffron Transportation was performing a similar parking study for the Capitol Hill Neighborhood. Although each neighborhood is unique, several of the issues and potential solutions are the same. The study was performed in four steps:

1. Met with neighborhood groups to brainstorm parking issues and identify potential solutions that were worth evaluating.

2. Developed list of potential parking solutions that could be applied to the neighborhood. These were submitted to the neighborhood planning committee for review.

3. Collected parking supply and demand information for the entire neighborhood to better define the parking issues and provide information needed to evaluate solutions.

4. Formulated recommendations based on parking characteristics survey and feedback from neighborhood planning committee and businesses.

Study Area

The Pike/Pine neighborhood parking study evaluated the entire neighborhood which extends from Interstate 5 (I-5) to 15th Avenue E and from E Olive Street to E Union and E Madison Streets. The study area is shown on Figure 1.

PIKE/PINE PARKING STUDY

Figure 1
STUDYAREA

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EXISTING PARKING POLICIES

This section describes existing laws or policies that govern parking supply in the neighborhood. This includes provisions in the City of Seattle's Land Use Code related to the number of parking spaces required for various land uses; how residential parking zones are established; and the dimension of on-street parking stalls. Information about the dimension of off-street parking stalls is not included in this section since it varies greatly depending on the layout of a parking lot.

Residential Parking Zones

The City of Seattle established the Residential Parking Zone (RPZ) Program to help ease parking congestion in residential neighborhoods. An RPZ is established in a neighborhood to discourage long-term parking by non-residents on residential streets. It is appropriate where parking congestion in residential areas is being caused by a nearby business or institution such as a hospital or school. An RPZ will not ease congestion when it is caused by residents themselves owning more cars than there are parking spaces available.

Two RPZs currently exist in the Pike/Pine Neighborhood. One of these, Zone 4, was initially established to reduce parking congestion around Group Health Hospital. It has been expanded in recent years because streets just beyond the RPZ boundary were being adversely impacted by parking overflow from the RPZ. The Zone 7 RPZ was established to protect the neighborhood from the impacts associated with the hospitals on First Hill. The boundary for Zone 7 extends from Yesler Way to Pine Street and from Interstate 5 to 14th Avenue E. Both of the existing RPZs in the neighborhood allow residents with a valid permit displayed in their vehicle to park in the RPZ. All other vehicles are limited to 1 or 2-hour parking during the time that the RPZ is enforced.

To obtain an RPZ permit, a resident must submit the following information to the City: 1) Current proof of residency showing resident's name and address. This can be a bill, bank statement, rent receipt, or other form of official mail dated within the last 30 days. 2) A copy of the resident's current Washington State Vehicle Registration. The vehicle must be registered in the resident's name or the same last name as the proof of residency. Titles, temporary registrations and bills of sale are not accepted. Out-of-state registration is accepted only for active duty military personnel or out-of-state students providing proof of non-resident status. The cost of the permit is currently $27.00 and is usually valid for two years. The fees collected pay for the administrative cost of the permits. Each household that purchases an RPZ permit may receive one free guest permit that is transferable. Temporary permits for up to 60 days can also be obtained for construction, out-of-state students, and new vehicles. Temporary permit fees are $5 to $10.

According to SMC 11.16.317, "the Director of Transportation may establish a restricted parking zone whenever seventy-five percent (75%) or more of the capacity of the streets available for parking in such designated area is generally occupied during regular business hours or any consecutive eight (8) hour period during evenings or during any consecutive eight (8) hour period on both Saturdays and Sundays; at least twenty-five percent (25%) of the vehicles parked on the street in the area during such hours are not owned by residents of the designated area; a petition signed by, or a survey indicating that, a majority of the residents in the designated area approves the restricted parking zone; and the public interest would be served. In cases where the criteria listed above are not all met, the Director of Transportation is authorized to establish a restricted parking zone when, in his or her judgment, the parking problem will be ameliorated by a restricted parking zone and the public interest would be served."

SEATRAN will consider an RPZ after receiving a request for an RPZ from a neighborhood community council or letter signed by at least 25 residents representing a five-block area. SEATRAN reviews these requests to make sure that the parking problem exists on at least five blocks, that there appears to be 75% or more of the parking spaces being utilized, and that there is an identifiable non-residential parking generator affecting the neighborhood. If an RPZ has merit, then SEATRAN will contact the interested party and perform a parking study to make sure that the requirements of SMC 11.16.317 are met. If the neighborhood decides to proceed with the project, then petition forms will be given to the applicants and signatures must be gathered from at least 60% of the households within the affected area. Only one signature per household is required. (Source for RPZ information: *Residential Parking Zone Program* Brochure, SEATRAN.)

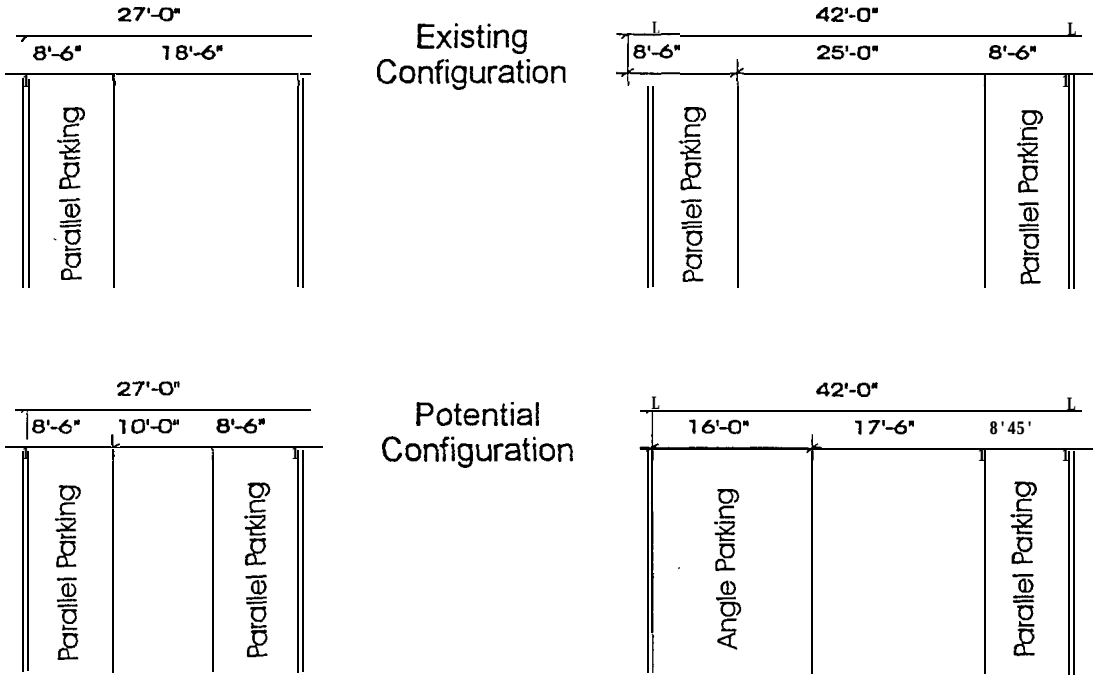
On-Street Parking Dimensions

Most of the streets in the Pike/Pine neighborhood have parallel parking on both sides of the street. If the street is wide enough, then angle parking can be added to one side of the street and parallel parking can be retained on the other side of the street. A curb-to-curb width of about 42 feet would be adequate to provide 16-foot angle parking stalls on one side of the street, 8.5-foot parallel parking stalls on the other side of the street, and maintain a driving lane for two-directional traffic (17.5 feet wide). On low volume streets, it may be possible to reduce the width and depth of the parking stalls by one foot; thus reducing the curb-to-curb width required to 40 feet.

Converting parallel parking to angle parking on one side of a street can increase the parking supply by up to 50% depending on the location of driveways and other obstacles such as fire hydrants. The width of the sidewalk should also be considered when converting a street from parallel parking to angle parking since the end of a car will overhang the sidewalk by about 1.5 to 2.0 feet depending on the parking angle. Because of this, the sidewalk should be at least 6 feet wide to accommodate angle parking. Where there is excess right-of-way area not needed for the parking configuration and driving lane, sidewalk widening should be considered.

There are also many streets in the neighborhood where parking is restricted on one side of the street to allow a wider driving lane. However, on some of these low volume streets, parallel parking could be provided on both sides of the street. This would retain one lane for through traffic, although vehicles approaching from opposite ends of the street may need to yield to one another (e.g., many streets in Seattle's neighborhoods). A street width of 27 feet curb-to-curb would allow two 8.5-foot parking lanes and a 10-foot driving lane. Streets as narrow as 25 feet could be considered for parallel parking on both sides of the street (this would provide two 7.5-foot parking lanes and a 10-foot driving lane). Eligibility for two-sided parallel parking will depend on the street's traffic volume, truck access requirements, and whether or not there is space available for a vehicle to wait for an approaching vehicle to pass. Figure 2 illustrates the street dimensions used by several parking configurations.

Figure 2. Sample On-Street Parking Configurations



Source: **Parking lane dimensions from** *"Fundamentals* **of** *Traffic* **Engineering',** *ITTE* **provided** *by City of Seattle.*

Note: The width of **the** *parking areas* **may** *be able to be reduced by one* **foot** *on low volume streets.*

Parking Requirements for Residential Uses

The Seattle Municipal Code (SMC) defines the parking requirements for new multi-family structures. Section 23 of the SMC is also referred to as the "Land Use Code." The parking ratios established by the City balance the need to provide on-site parking in order to reduce parking congestion on surrounding streets with the need to minimize the costs of housing associated with required off-street parking. The parking ratios also recognize the City's energy policies which encourage the use of public transit and discourage the use of automobiles. The parking requirements vary according to the type of housing, the project and unit size, and the number of bedrooms. Additional mitigation of parking impacts may be required under the State Environmental Policy Act (SEPA) where on-street parking is already at capacity as defined by Seattle Transportation (SEATRAN) or where the development itself would cause on-street parking to reach capacity. However, parking impact mitigation in multifamily zones under SEPA may not include reduction in development density. Mitigation under any other administrative review procedure is not required. (SMC 23.12.060, Policy 8: Quantity of Required Off-Street.)

The SMC also provides for the establishment of a parking overlay to ensure that new housing development will not increase on-street parking congestion or to acknowledge areas in which parking demand may be less than the requirement (SMC 23.12.060, Policy 8, Implementation Guideline 2).

The SMC prohibits off-site accessory use parking in Lowrise and Midrise areas. However, in order to encourage shared parking facilities and to provide the flexibility to develop parking separate from residential structures in Highrise areas, off-site accessory use parking structures are permitted in Highrise areas, subject to administrative review. Off-site accessory use parking in the Highrise areas must be compatible with the residential character of the area. (SMC 23.12.060.) One of the recommendations for the Pike/Pine neighborhood is that accessory off-site parking be allowed.

Table 1 summarizes the existing multi-family residential parking requirements from the Land Use Code. The required number of parking stalls ranges from 1.1 spaces per dwelling unit to 1.5 spaces per dwelling unit depending on the number of units and the average size of each unit.

Table 1. Parking Requirements for Various Multi-Family Residential Uses

Number/Size/Type of Dwelling Units	Parking Required
2 to 10 dwelling units	1.10 space per unit [a]
11 to 30 dwelling units	1.15 space per unit [a]
31 to 60 dwelling units	1.20 space per unit [a]
More than 60 dwelling units	1.25 space per unit [a]
Average unit size greater than 500 square feet	+0.0002 spaces per square foot in excess of 500 sf [b]
More than 50% of units are 3 bedrooms	+0.25 spaces per 3-bedroom unit
Four-bedroom dwelling units	+0.25 spaces per 4-bedroom unit
Low-income elderly	1 space per 6 units
Low-income disabled	1 space per 4 units
Artist studio/dwelling	1 space per unit

a 1.5 spaces per unit required for 2 or more dwelling units with 2 or more bedrooms

b Up to a maximum additional of 0.15 spaces per dwelling unit

Source: Seattle Municipal Code 23.54.015, July 1998.

Parking Requirements for Commercial Uses

The City's parking policies for commercial zones are defined in SMC 23.12.070. The parking requirements are set to ensure customer and employee parking nearby, reduce congestion on adjacent streets, and minimize spill-over parking into adjacent residential areas. They are also intended to discourage underused parking facilities, which may mean tolerating occasional spillover parking. The code indicates that "flexibility shall be provided to encourage reuse of existing structures, support business expansion, development of small sites, and preservation of historic landmark districts and structures."

The minimum number of parking spaces required for commercial uses is generally based upon the gross floor area for a given type of use. With some exceptions, parking is not required for the first 2,500 square feet of any non-residential use. If an existing parking deficit exists when a change of use occurs, the deficit is allowed to continue unless the new use generates high volumes of traffic. Parking for fleet vehicles is to be provided separately from the above requirements. The SMC also identifies certain exceptions to the parking standards that would allow the required number of parking spaces to be reduced by a maximum of forty percent. Exceptions that apply to non-residential uses are outlined below.

- In an industrial zone or a commercial zone that is not a pedestrian zone, parking may be reduced by 15 percent or 20 percent, respectively, if the use is within 800 feet of a street with transit service with 15-minute headways. The distance is calculated to the nearest bus stop.

- Parking requirements may be reduced up to the 40 percent maximum by implementing alternative transportation programs, such as carpools, vanpools, transit passes, and the provision of bicycle parking according to code specifications.

- Under certain circumstances defined in the code, uses within 800 feet of one another may share parking facilities to meet their minimum requirements. Parking may be shared between two land use categories or within categories if the uses have different hours of operation.

- Under certain circumstances defined in the code, commercial uses may enter into cooperative parking arrangements to reduce individual businesses' parking requirement from 10 to 20 percent, depending upon the number of businesses in the arrangement. "Cooperative parking" allows customers to park once and walk to numerous businesses.

Table 2 identifies the minimum number of parking spaces for selected commercial uses that might occur in the neighborhood. The table represents a sampling of an extensive list of uses defined in Chart A of SMC 23.54.015. For specific uses that are not defined in the code, the Director of DCLU determines the required number of off-street parking spaces based upon comparable uses.

Table 2. Parking Requirements for Selected Commercial Uses

Land Use	Parking Requirement
Custom and Craft Work	1 for each 1,000 square feet
General Retail Sales and Services	1 for each 350 square feet
Ground-floor businesses in multi-family zones	None, Maximum of 10
Office, Administrative	1 for each 1,000 square feet
Office, Customer Service	1 for each 350 square feet
Research and Development Laboratory	1 for each 1,000 square feet
Restaurant	1 for each 200 square feet
Sales, Service & Rental of Commercial Equipment	1 for each 2,000 square feet

Source: City of Seattle Land Use Code 23.54.015, July 1998.

EXISTING PARKING CONDITIONS

This chapter describes the existing parking conditions in the Pike/Pine neighborhood. It includes a discussion of on-street and off-street parking supply, and parking demand information for the various types of parking.

On-Street Parking Supply

Each street in the neighborhood was inventoried to determine the number and type of on-street parking spaces. The number of parking spaces was determined by the number of vehicles that were (or could) park legally on the street. Spaces where vehicles were parked illegally were not included in the parking supply count.

On-street parking in the neighborhood includes many types of parking—meters, signed parking, residential parking zones (RPZs), loading zones, and unrestricted parking (no signed time limits or other restrictions). The parking inventory determined that there are 1,613 legal parking spaces in the neighborhood. The breakdown of on-street parking spaces by type is summarized in Table 3.

Table 3. On-street Parking Spaces by Type

Type of Parking	Number of Spaces	% of All Spaces
Meters		
2-hour Meter	265	16.4%
30-minute Meter	11	0.7%
15-minute Meter	6	0.4%
Total Meters	282	17.5%
Signed Parking		
1-Hour Parking	152	9.4%
1-Hour Parking Except with RPZ Permit	9	0.6%
2-Hour Parking	136	8.4%
2-Hour Parking Except with RPZ Permit	191	11.8%
4-Hour Parking	47	2.8%
Total Signed Parking'	535	33.2%
Load Zones		
Load/Unload (Includes load zone meter spaces)	112	6.9%
Passenger Load/Unload	16	1.0%
Total Loading Zones	128	7.9%
Unrestricted Parking Spaces	653	40.5%
Other Parking Spaces (Handicap and school bus zones)	15	0.9%
Total All Parking Spaces	1,613	100.0%

Source: *Heffron* Transportation, *June 1998.*

As shown in the previous table, a high percentage of parking spaces in the neighborhood are unrestricted (41%). Many of the unrestricted parking spaces are located on the non-arterial streets west of Harvard Avenue. Another pocket of unrestricted parking spaces exists on 10th and 11th Avenues south of Pike Street. Other unrestricted parking spaces are scattered throughout the neighborhood. Figure 3 shows the location of unrestricted parking spaces in the neighborhood.

Metered parking spaces exist along the primary commercial streets in the neighborhood—Pike and Pine Street west of 10th Avenue and Broadway. There are also some meters on the north-south streets between Pike and Pine Street including Harvard Avenue, Belmont Avenue, Melrose Avenue, and Minor Avenue. Most of the meters in the neighborhood have two-hour time limits although there are a few locations with 30-minute and 15-minute meters. Figure 4 shows the location of parking meters.

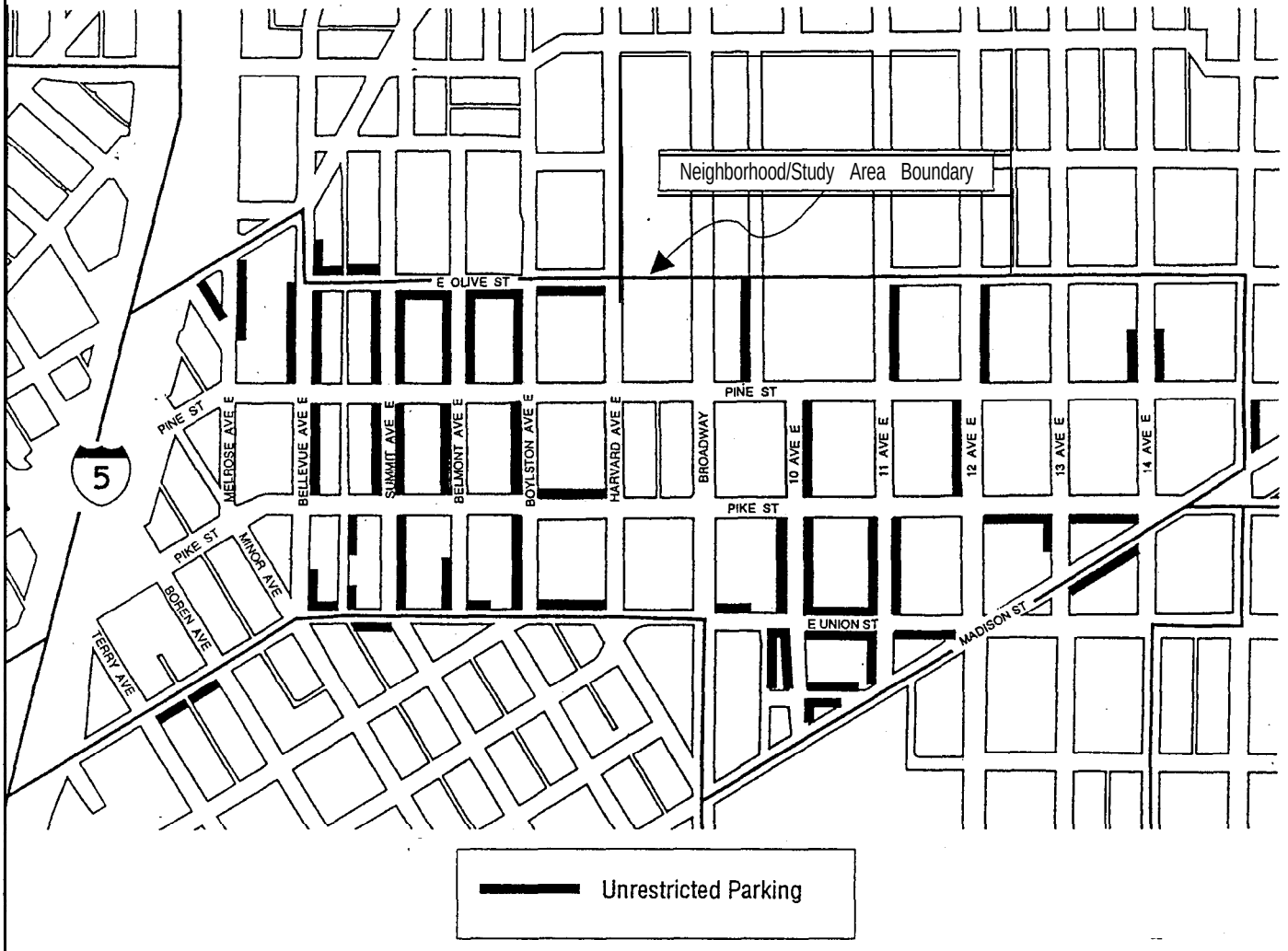
Signed parking restrictions include one, two, and four-hour parking limits, as well as RPZs. These types of signed parking restrictions exist primarily along Pike and Pine Streets and the connecting north-south streets east of Broadway. Figure 5 shows the signed parking restrictions in the neighborhood. There are two areas in the neighborhood that have been signed as an RPZ. These include the area north of Pine Street between 11th Avenue and 15th Avenue, and a small area along Union Street, Minor Avenue, and Bellevue Avenue. These RPZs allow unlimited parking for vehicles that have a valid permit for the area; they also allow two-hour parking by non-permitted vehicles. Permits are provided to residents in the area. There is also a 1-hour RPZ on the east side of 11th Avenue between Union and Madison Street. Figure 6 shows the location of residential parking zones.

Figure 7 shows the location of load zones in the neighborhood. There are several types of load zones in the neighborhood. Commercial vehicle load/unload zones are restricted to licensed commercial vehicles only. There are also general load/unload zones that could be used by anyone who makes a delivery or pick-up within the signed time limit. Passenger load zones have the shortest time duration, typically three minutes.

On-Street Parking Demand

Parking demand surveys were performed for all streets in the Pike/Pine neighborhood during two time periods: weekday between 10:00 A.M. and 1:00 P.M., and weeknight between 6:00 and 9:00 P.M. All demand counts were performed on Wednesday, May 20, 1998. Because the parking demand surveys were performed in the middle of the day and at night when truck loading activity is minimal, the demand for loading zones was not included in the survey. As described in the *Parking Supply* section, there are 1,478 metered, signed, and unrestricted parking spaces in the Pike/Pine neighborhood that are available for passenger vehicles. During the weekday (midday) survey, 1,264 of these spaces (86%) were occupied. During the weeknight (evening) survey, 1,314 of these spaces (89%) were occupied. The Appendix includes a block-by-block summary of the parking supply and demand surveys.

The utilization by type of parking was compiled to show how various parking restrictions affect parking demand. The utilization by type is shown on Figure 8. Since the parking demand counts were performed for an entire block and did not differentiate between what types of parking were utilized, this analysis only considered the streets with a single type of parking. Sixty-four percent (64%) of the parking spaces in the neighborhood were included in the utilization analysis.



PIKE/PINE PARKING STUDY

Figure 3

UNRESTRICTED PARKING

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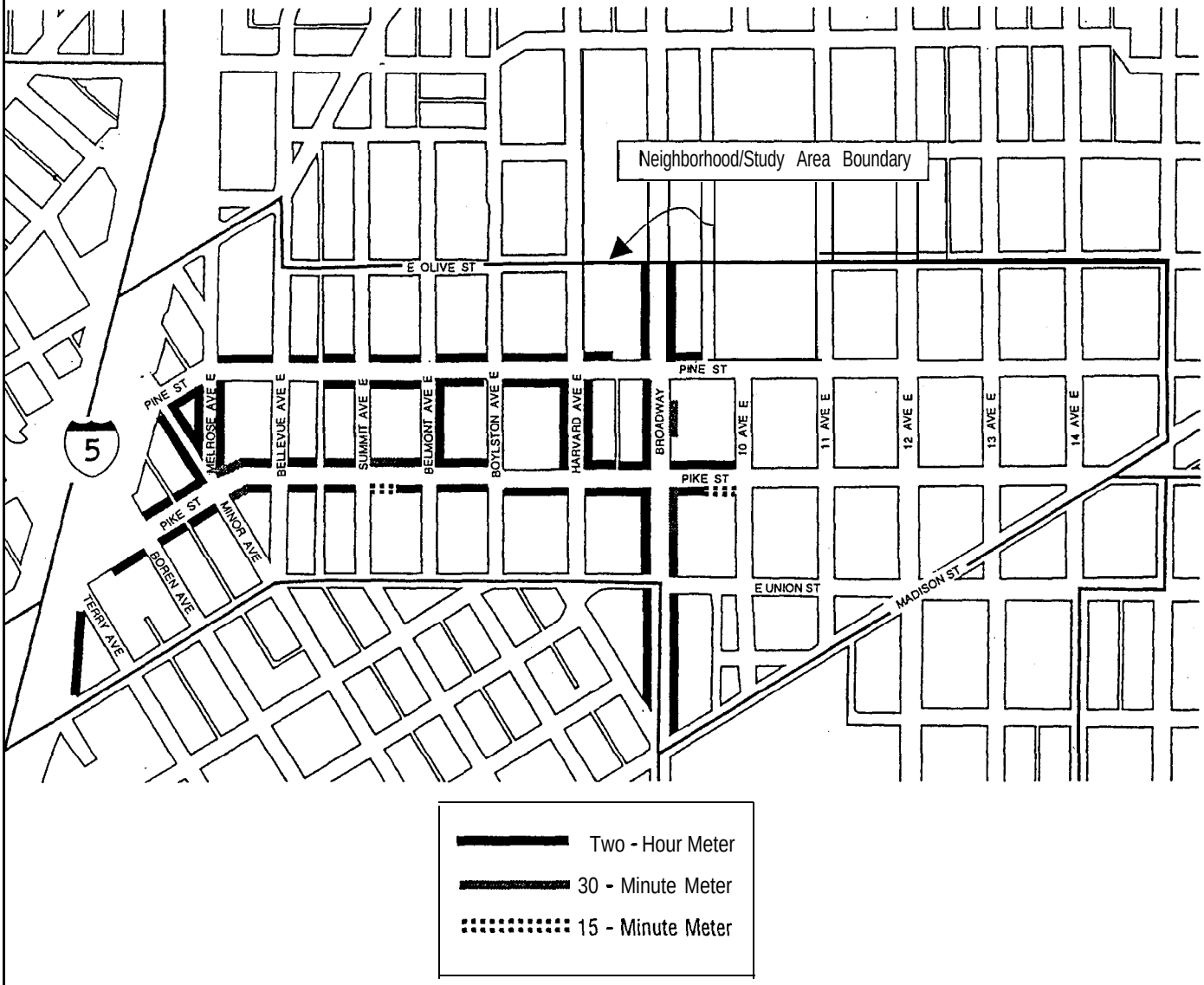

PIKE/PINE PARKING STUDY

Figure 4

METER PARKING

HEFFRON TRANSPORTATION

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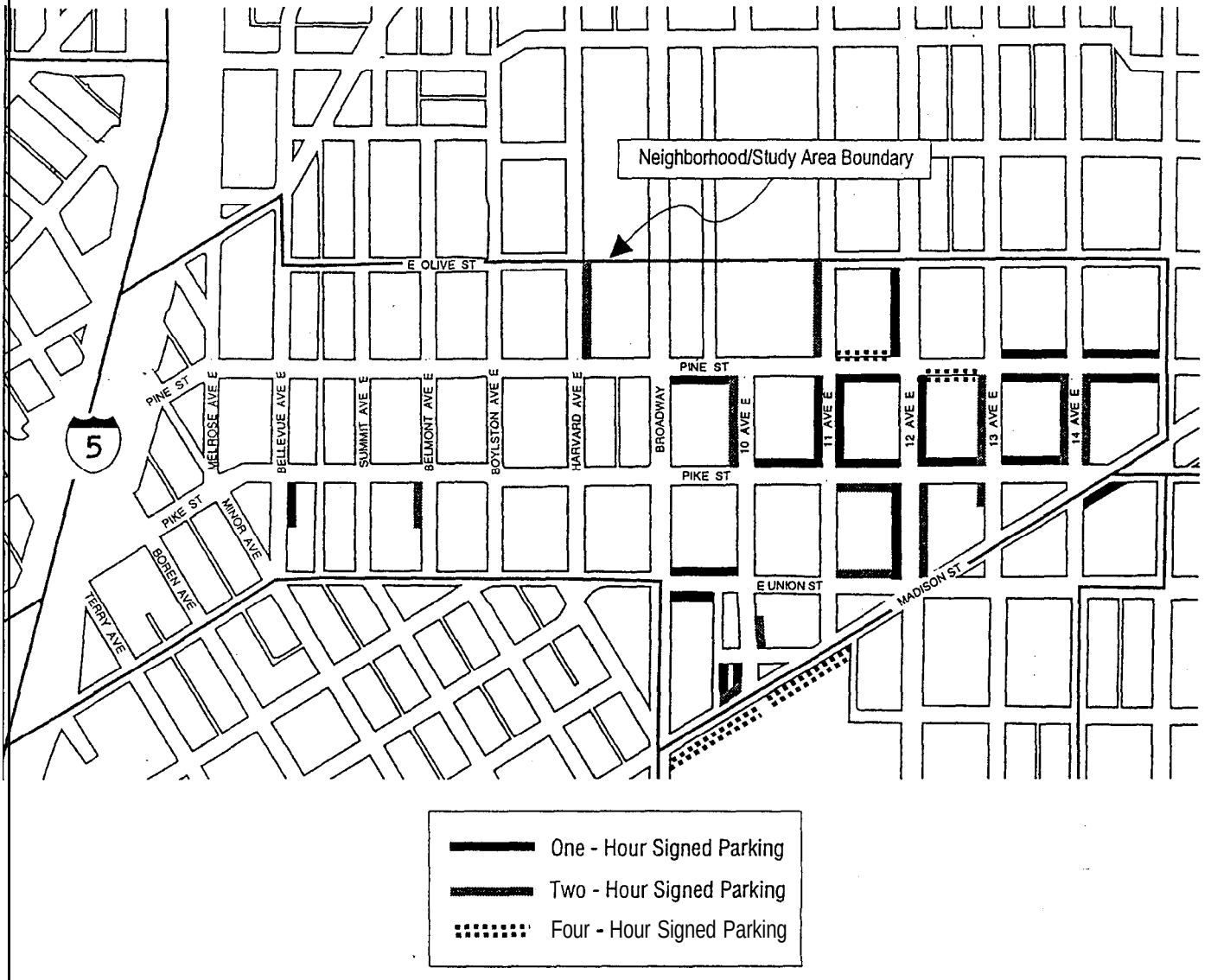

PIKE/PINE PARKING STUDY

Figure 5

SIGNED PARKING RESTRICTIONS

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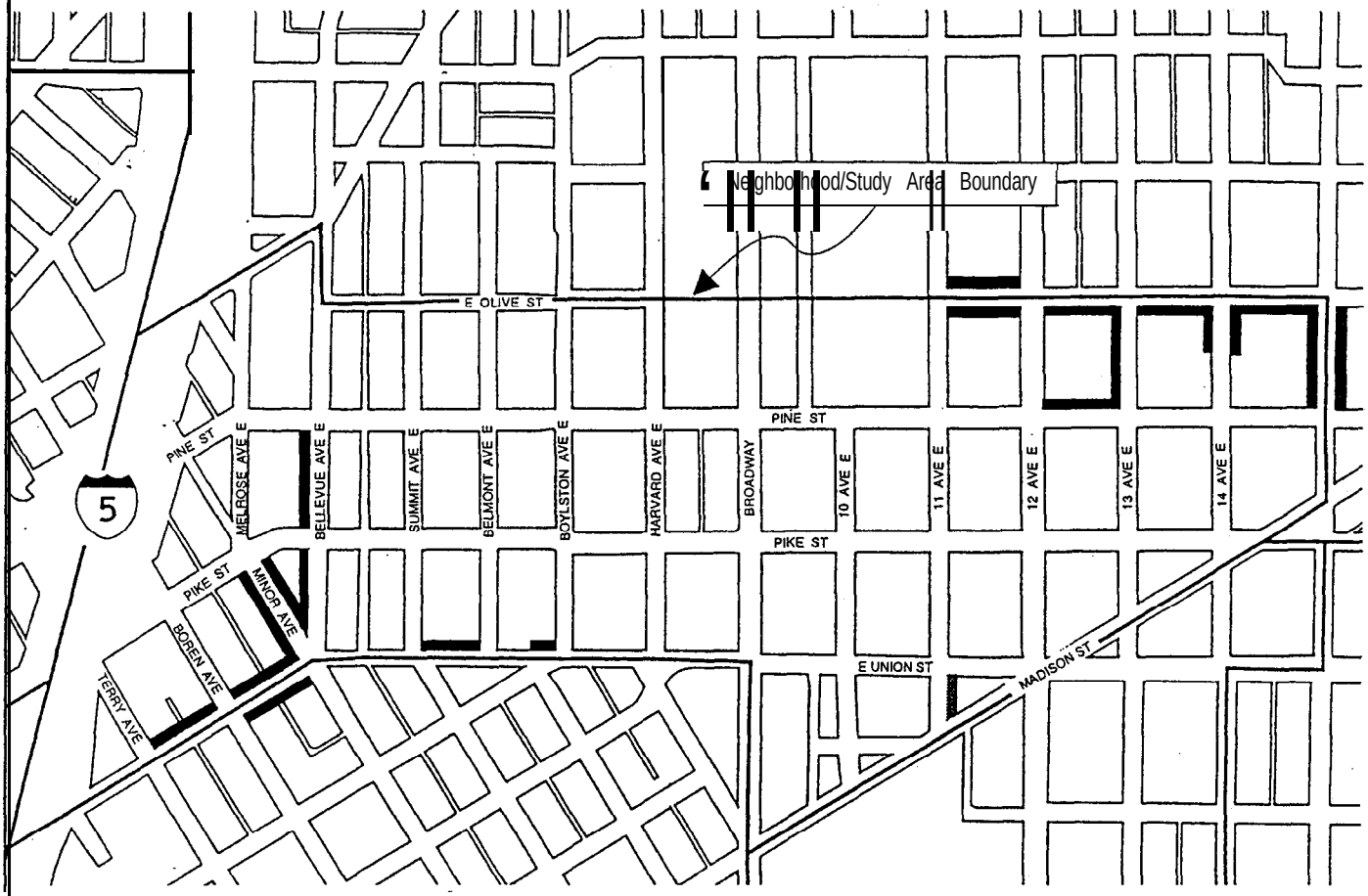

PIKE/PINE
PARKING STUDY

Figure 6

RESIDENTIAL PARKING ZONES

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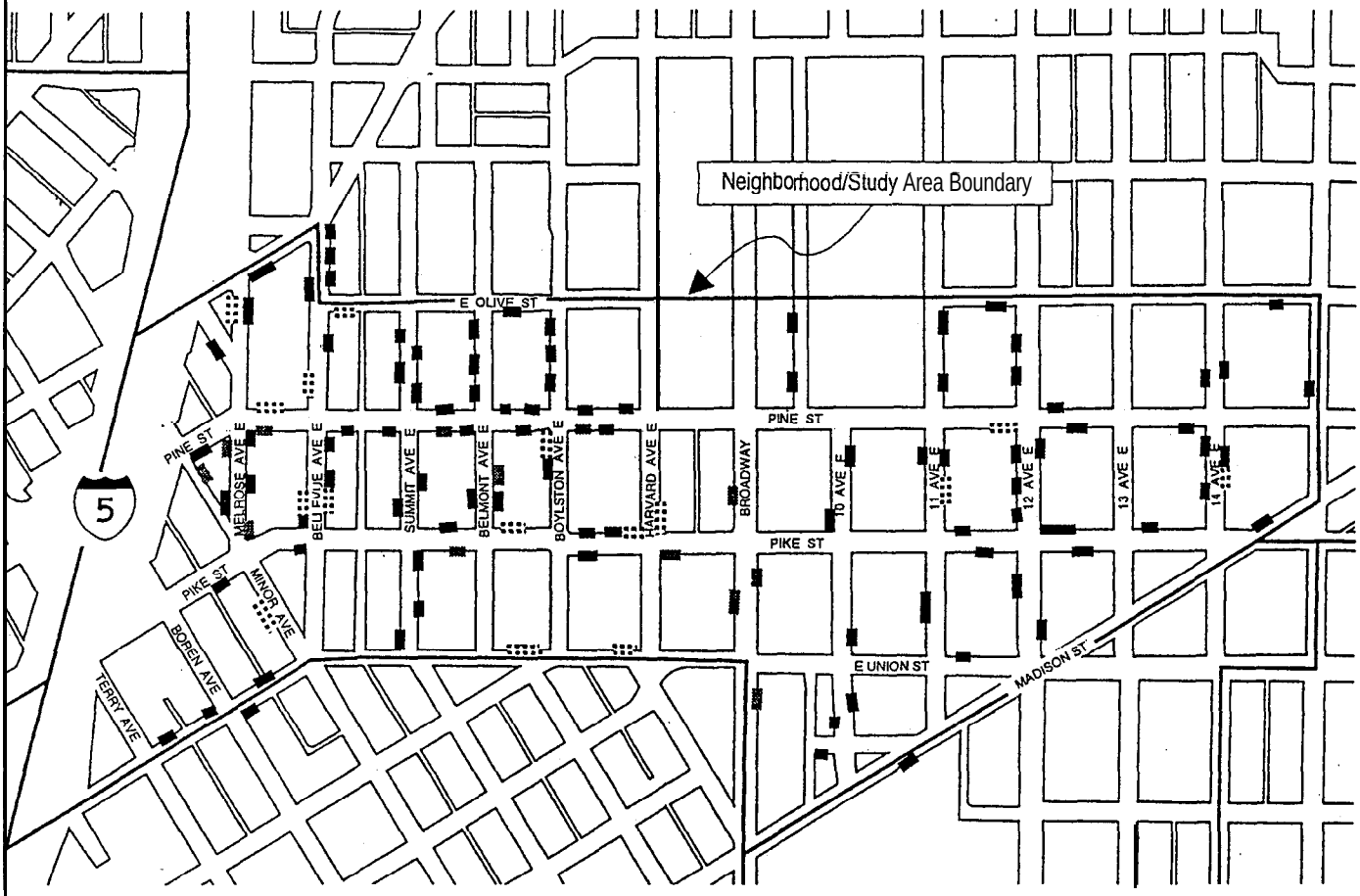


PIKE/PINE PARKING STUDY

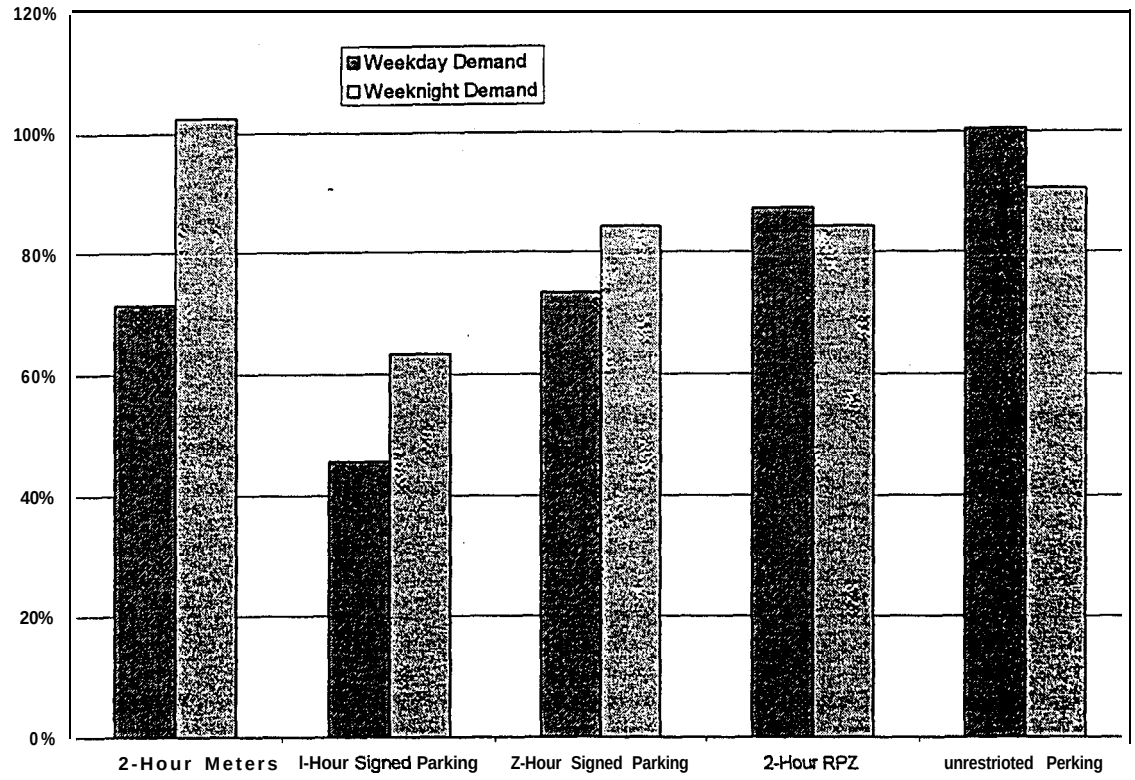
Figure 7

LOAD ZONES

HEFFRON TRANSPORTATION

8/12/98

Figure 8. Parking Demand by Type of Parking



Source: *Heffron Transportation, July 1998.*

The parking demand analysis shows that the unrestricted parking spaces are well used at all times of the day. Half of the 653 unrestricted parking spaces in the neighborhood are located west of Harvard Avenue where they could provide convenient, free parking for downtown Seattle employees or Convention Center visitors. This entire section of the neighborhood is located within one-half mile of the Convention Center. By comparison, the Seafirst Columbia Center in downtown Seattle is located about one-half mile from the center of the North Kingdome Parking Lot where many downtown employees park. Because these unrestricted parking spaces may now be serving commuters that live outside of the neighborhood, Heffron Transportation recommends that the neighborhood pursue a 2-hour Residential Parking Zone for many of the streets in the western section of the neighborhood. Such a zone would allow 2-hour parking for business customers and visitors, and all-day/night parking for residents who have a valid permit on their vehicle. It would discourage long-term parking for non-residents. The City of Seattle requires approval from 60 percent of the residents and businesses within the RPZ before it is implemented.

The parking demand analysis also shows that the 2-hour meter spaces are about 70% utilized during the day, and more than 100% utilized in the evening. The metered spaces are primarily located along streets in the commercial core area west of Broadway and may be more heavily utilized in the evening because of restaurants, night clubs, and the Egyptian Theater in the area. The meters are not in effect after 6:00 P.M., therefore, the metered spaces may also be used by residents in the neighborhood who park on the street all night. During the day, there are several street sections where the meters were not well utilized. These include: Minor Avenue between Pike and Pine Street (12% utilized), Pike Street between Boren and Summit Avenues (41% utilized), Pine Street between Bellevue and Belmont Avenues (44% utilized), Hubble Place (54% utilized), and Broadway between Madison and Union Street (56% utilized). Depending on the type of future development that occurs on these

streets, it may be appropriate to remove the parking meters and replace them with signs for 2-hour parking. The other parking meters in the neighborhood were well utilized during both the daytime and evening surveys.

There are two residential parking zones (RPZs) in the neighborhood; one in the southwest corner of the neighborhood and another in the northeast corner of the neighborhood. These RPZs allow unlimited parking for vehicles with a valid permit for the RPZ, and two-hour parking for others. Overall, RPZ spaces in the neighborhood were 87% utilized during the daytime and 84% utilized at night. The highest level of RPZ-space utilization occurred on Union Street between Boylston and Terry Avenues where the spaces were 100% utilized during the daytime and about 95% utilized at night. Except for this section, the survey found that there were at least one or two parking spaces available per block which helps reduce the distance that residents or visitors must drive to find an available parking space.

One side of 11th Avenue between Union and Madison Street is signed for 1-hour parking except with an RPZ permit. This RPZ is unique because it is so small and also because it allows 1-hour parking (all other RPZs allow 2-hour parking). This small RPZ (nine parking spaces) is surrounded by unrestricted parking. The parking demand survey found that this 1-hour RPZ was well utilized during both the day and evening.

Off-Street Public Parking Supply and Demand

There are several off-street public parking lots and garages in the neighborhood. The number of spaces in each lot plus additional information about cost were collected for each of these parking lots. The location of lots is shown on Figure 9. Information about the number of parking spaces and pricing structures is presented in Table 4. There are an estimated 738 off-street parking spaces available during the day for public use. An additional 590 parking spaces are available in the evenings when the Seattle Central Community College garage and one other lot are available to the public. The pricing structure shows that the average fee for two hours of parking is $3.20. The average fee for all-day parking is $9.00. If the Harvard Market garage is excluded since its fee structure is purposely set to discourage long-term parking and validate for its own customers, then the average fee for two hour parking is $3.60 and the average fee for all-day parking is $6.33. This shows that most parking lot managers in the neighborhood favor long-term parking since it only costs twice as much to park all day as it does to park for two hours. Also, it costs a customer almost twice as much to park in an off-street parking lot than to utilize an on-street parking meter for two hours; off-street parking is higher still if the customer stays for less than two hours.

The demand for off-street parking was surveyed two times for this study: once mid-day on a weekday and once after 6:00 P.M. on a weeknight. The surveys were performed in June 1998. The large garage at SCCC was not counted during this survey; however, sources at SCCC confirmed that there is substantial capacity available during the evening hours. Table 4 summarizes the demand for off-street public parking in the neighborhood. The surveys determined that about 78% of the available parking is utilized during the daytime periods.

Auto Ownership

The Pike/Pine neighborhood has one of the lowest auto ownership rates of any neighborhood in the City of Seattle. Based on 1990 Census data, for each residential dwelling unit in the neighborhood there are 0.62 automobiles. This compares to the City-wide average of 1.49 autos per dwelling unit. The low auto-ownership in the neighborhood may be related to its close proximity to downtown Seattle, the income level of residents who live in the area, the close proximity to services, or the existing lack of parking supply in the neighborhood.

Table 4. Public Off-street Parking Supply and Demand

Lot #	Description	# Stalls Available for Public		Parking Fee			Weekday Parking Demand	
		Weekday	Evening	2 Hours	All Day	Evening	Weekday (Midday)	Evening (after 6 P.M.)
1	Pine Street west of Melrose Avenue	48	48	$4.00	$5.00	$5.00	34	15
2	Bellevue Avenue north of Pine Street	43	43	n/a	n/a	n/a	36	12
3	Southeast of Pike Street/Bellevue Avenue	40	40	$6.00	$8.00	$6.00	28	4
4	Summit Avenue south of Pike Pike Street	18	18	$2.00	$5.50	$1.00	15	7
5	SCCC Parking Garage	Reserved	527	n/a	n/a	$3.00	Reserved	Unknown
6	West side of Harvard across from QFC	82	82	$3.00	$5.00	$3.00	102	15
7a	Harvard Market – Upper Parking Lot	76	76	$1.50 [2]	$21.00	n/a	50	53
7b	Harvard Market – Lower Parking Lot	206	206	$1.50 [2]	$21.00	n/a	170	Unknown
8	Southwest corner of Broadway/Union	Reserved	18	n/a	n/a	$2.00	Reserved	1
9	East side of Broadway north of Union	30	30	$2.00	$6.50	$3.00	26	2
10	East side of Broadway across from SCCC	57	57	$6.00	$7.00	$6.00	21	5
11	East side of Broadway south of Pine	30	30	$4.25	$8.00	$3.00	20	15
12	Pike Street between 10th and 11th Avenues	25	25	$3.00	$7.00	$7.00	17	8
13	Northwest of Pine Street/13th Avenue	36	36	$2.00	$5.00	$2.00	21	15
14	Northwest of Pine Street/14th Avenue (Proposed)	47	47	n/a	n/a	n/a	n/a	n/a

Source: Heffron Transportation, July 1998. Some parking supply and price information provided by Seattle Central Community College, March 2, 1998.

1 *n/a = not applicable or not available*

2 *With validation*

PIKE/PINE
PARKING STUDY

Figure 9

LOCATION OF OFF-STREET
PARKING AREAS

HEFFRON
TRANSPORTATION

8/31/98

PARKING RECOMMENDATIONS

This section presents parking measures that Heffron Transportation recommends be considered for the Pike/Pine neighborhood. Included are: on-street parking recommendations, off-street parking recommendations, land use code revisions, and measures to encourage non-automobile modes of travel. The measures recommended herein should be prioritized and validated through the Pike/Pine neighborhood's ongoing neighborhood planning process.

Because of the diverse land use in the Pike/Pine neighborhood, the available parking within the neighborhood must be shared by restaurants, retail shops, offices, automotive uses, industrial uses, and residents. While there are strategies that may improve how parking supply is allocated to serve one or more of these uses, no single strategy will serve all uses. Therefore, many parking management strategies are recommended to address the diverse parking needs of the neighborhood.

On-Street Parking Recommendations

The City of Seattle's current policy is to obtain approval of property owners and/or tenants along a street frontage before changes to parking along that street are implemented. Typically, 60% of the property owners/tenants must agree to the revision. This policy makes it difficult to implement parking changes that may be in the best interest of the City and the neighborhood. It may also contribute to the perception that on-street parking spaces are "owned" by the adjacent property. On the other hand, this existing policy has limited the ability of residents to change on-street parking restrictions along commercial streets and vice versa. In the long run, the City of Seattle may need to re-evaluate this policy of obtaining adjacent property owner permission to revise on-street parking so that the goals outlined in the City's *Comprehensive Plan* and *Draft Transportation Strategic Plan* can be realized. The *Comprehensive Plan's* goals related to parking are:

G15: Provide enough parking to sustain the economic viability and vitality of commercial areas while discouraging commuting by single-occupant vehicle.

G16: Reduce use of cars over time, particularly for commute trips.

G17: Make the best use of the City's limited street space, seek balance among competing uses, and protect neighborhoods from overflow parking.

Until the City's policy is changed, recommendations to revise on-street parking in this report would require adjacent property owner/tenant approval. Implementation of the recommendations in this report would likely require that a neighborhood sponsor, such as the Merchants of Pike Pine (MOPP), shepherd a petition to affected property owners. Once the petition has 60% approval, Seattle Transportation (SEATRAN) would be responsible for making the requested changes. Recommendations related to meter hours and meter revenue sharing would likely require approval by the Seattle City Council. On-street parking recommendations are listed below.

1. **Add on-street parking spaces where possible.** There are several locations in the neighborhood where additional parking spaces could be added. Sections of Bellevue, Summit, Belmont and Harvard Avenues, for example, are 42 feet wide. This width would allow angle parking on one side of the street and parallel parking on the other side of the street. Some sections of these streets already have this parking configuration. Adding angle parking on one side of the street where parallel parking currently exists could increase the parking supply by up to 50%. There are also many streets in the neighborhood where parking is restricted on one side of the street to allow a wider driving lane. However, some of these low volume streets could have parking on both sides of the street if they are at least 25-feet wide. This would retain one lane for through traffic, although vehicles approaching from opposite ends of the street may need to yield to one another (e.g., most streets in the Wallingford neighborhood).

2. **Support Bus Zone Consolidation. King County/Metro** is considering consolidating transit stops as a means to improve transit speed and reliability. Bus stops are typically located at two-block intervals. The consolidation

would spread these stops to approximately three-block intervals. In addition to the transit benefits, bus stop consolidation would also free up curb space for parking.

3. **Reduce time limits for signed on-street parking within one-half block of commercial areas.** Many of the streets in the neighborhood have unrestricted (unsigned/unmetered) parking. Most of this unrestricted parking is located on the north-south streets west of Broadway and on 11th and 10th Avenues south of Pike Street. Some of these streets are within one block of the commercial core area on Pike and Pine Streets where parking turnover may be desired. Installing signs with "2-Hour" parking limits between 9:00 A.M. and 6:00 P.M., or installing meters, would increase parking turnover for customers and reduce use of these spaces by employee and residents.

4. **Add new parking meters.** Parking meters are the most effective way to encourage parking turnover in areas with high parking demand. Meters are located along both Pike and Pine Streets west of 10th Avenue E, on Broadway, and on some of the side streets between Pike and Pine Streets west of Broadway. As additional higher-intensity commercial uses are developed in the area east of 10th Avenue E, parking meters should be considered to increase parking turnover for these businesses.

5. **Decrease meter parking duration limits.** All but 16 of the existing 280 meters in the Pike/Pine neighborhood have two-hour time limits. Some businesses may benefit by having more meters with 15 or 30-minute time limits. This would increase the parking turnover for on-street parking.

6. **Institute Residential Parking Zone (RPZ) on streets west of Harvard Avenue.** The parking supply and demand analysis performed for the Pike/Pine Neighborhood determined that most of the parking spaces west of Harvard Avenue are unrestricted. These spaces were well utilized at all times of the day. Because there are no parking restrictions, this area could be providing convenient, free parking for downtown Seattle employees or Convention Center visitors. This entire section of the neighborhood is located within one-half mile of the Convention Center. By comparison, the Seafirst Columbia Center in downtown Seattle is located about one-half mile from the center of the North Kingdome Parking Lot where many downtown employees park. To prevent downtown commuters from parking in this area, and to encourage more parking turnover during the daytime hours, it is recommended that the neighborhood pursue a Two-hour Residential Parking Zone for many of the streets in the western section of the neighborhood. Streets with commercial uses should be excluded from the RPZ. Such a zone would allow two-hour parking for business customers and visitors, and all-day/night parking for residents who have a valid permit on their vehicle. It would discourage long-term parking for non-residents. As previously mentioned, an RPZ would require approval by the adjacent property owners and/or tenants.

7. **Extend meter operating hours to 9:00 P.M.** Existing parking meters in the neighborhood are not enforced after 6:00 P.M. A meter-turnover survey performed for the north end of Broadway as part of the Capitol Hill Parking Study determined that meter turnover declines steadily after 6:00 P.M. In addition, the existing enforcement hours allow meters to be occupied by the same vehicle from 4:00 P.M. until the next morning. Extending the meter hours (and enforcing the extended hours) would increase meter turnover between 6:00 and 9:00 P.M. Higher meter turnover in the evening would increase the amount of parking available for customers to the many restaurants and other evening uses along Pike and Pine Streets. The end time of 9:00 P.M. is recommended instead of a later time since it would allow a customer to have dinner in the neighborhood and then attend a 9:00 or 9:30 P.M. movie without having to worry about the meter expiring.

8. **Institute Meter Revenue Sharing with Neighborhood.** Extending meter hours in the Pike/Pine Neighborhood may have initial impacts that could be off-set through an extensive outreach and marketing campaign to educate business customers, owners, and employees as well as residents about the change in meter times. The cost of this marketing could be offset by a portion of the excess meter revenues generated by the extended operating hours. Studies to determine how extended meters function and to quantify their effectiveness on parking turnover, should also be performed after the enforcement extension is implemented. These studies should be compared to existing conditions. Since extending the meter hours by four hours per day would increase meter revenues by about 33%, one method to fund the marketing and meter studies is for the City of Seattle to share a portion of the meter revenues with a recognized neighborhood association such as a Business Improvement Association (BIA) or other group that would be responsible for the marketing campaign and meter studies.

9. **Establish differential parking tines that are appropriate for various neighborhoods.** Parking infraction fines that are appropriate in downtown Seattle may be too high for outlying neighborhoods. Fines that are too high may discourage customers from visiting the neighborhood in favor of suburban sites where parking is readily available and free. Fines that are proportional to the cost of off-street parking in a neighborhood would be more appropriate.

10. **Increase enforcement.** All parking restrictions are only effective if they are adequately enforced. Additional enforcement is needed in areas that are signed with "2-Hour Parking" instead of meters since enforcement officers must mark tires to determine how long a vehicle has been parked.

11. **Consolidate and/or relocate loading zones.** The Pike/Pine neighborhood has many blocks with two, three, and even four loading zones. In such cases, the size of the individual loading zones may be too small to accommodate today's truck sizes, and the number of loading zones may be reducing the parking capacity available for customers. The existing loading zones should be reviewed to determine if they are adequate to serve the existing demand, if two or more loading zones could be consolidated, if a loading zone could be relocated to the end of a block or adjacent to an alley, or if a loading zone could be eliminated. One longer loading zone on each side of the street should be sufficient for most business and resident needs.

12. **Prepare information packet regarding various on-street parking options.** The City of Seattle's current policy is to obtain approval of property owners and/or tenants along a street frontage before changes to parking along that street are implemented. However, most people probably do not realize how parking adjacent to their property could be improved. SEATRAN should create an information packet regarding the types of changes that are possible, the parameters (e.g., street and sidewalk width) that need to be met before changes will be made, and the process for initiating the change with the City. Similar information packets have been created for the City's Residential Parking Zone Program and Street Tree Program.

Off-Street Parking Management Options

The City of Seattle's *Land Use Code* establishes the requirements for off-street parking in terms of number of spaces, size, landscaping etc. However, the City does not control how off-street parking is managed in privately-owned parking lots. There are many operational measures that could be implemented to improve off-street parking. Off-street parking management recommendations are listed below. A subsequent section discusses *Lund Use Code* revisions that may also improve parking in the area.

1. **Reduce parking rates for short-term parking.** Current rate structures for short-term off-street parking lots are not competitive with on-street meters. Changing the rate structure to encourage short-term parking may increase utilization of the off-street parking lots and increase parking turnover. Because of this, several locations where parking rates were changed to favor short-term parking (such as downtown Portland) have reported an increase in parking revenue even when additional staffing for the parking lots was required. Rates that favor short-term parking would also discourage parking lots in the neighborhood from becoming satellite parking for downtown Seattle.

2. **Improve signage to off-street lots.** Many of the off-street parking lots in the neighborhood are difficult to find, and are underutilized by customers. Uniform signage directing motorists to parking lots would likely improve utilization of lots that are not visible from the main street.

3. **Provide valet parking.** Local businesses can improve parking for customers by providing valet parking. A valet service would require a supply of off-street parking. However, because valets can double-stack cars (end to end), less space would be required than if the customers had to park themselves. In areas where there are several similar businesses on the same block, there is the potential to share valet services. Valet companies often operate only on revenue obtained from tips.

4. **Validate parking for off-street parking lots.** A neighborhood-wide validation program could be established using existing off-street parking lots similar to the "Easy Streets" program in downtown Seattle. Customers

who patronize local businesses in the neighborhoods could receive reduced-price parking in recognized parking lots.

5. **Expand the Seattle Central Community College (SCCC) parking garage.** SCCC is proposing to expand its on-campus parking supply. The current proposal is to add approximately 250 spaces. The majority of these would likely be added to the main garage on the south side of campus, although some spaces could be added elsewhere. With the expansion, more parking spaces would be provided for carpools. The parking lot expansion would reduce the number of cars parked on the surrounding streets, particularly if combined with measures to discourage student's from parking on the streets (such as two-hour parking or RPZs).

6. **Promote public use of SCCC parking garage during the school's off-peak parking hours.** SCCC's peak parking times occur from 7:00 A.M. to about 12:00 P.M. During the afternoon, evening, and night, parking is available in this garage that could be used to satisfy parking demand during the peak parking times in the Pike/Pine neighborhood. SCCC currently sells public parking in this garage during its off-peak hours, and also sells residential parking passes for overnight parking. Active promotion of this service would likely increase utilization of this facility.

7. **Encourage replacement of public parking spaces when surface parking lots are redeveloped.** There are several off-street, surface parking lots in the neighborhood that could be redeveloped. Developers should be encouraged to replace existing off-street parking for public use. Development or financial incentives may be needed in areas where the revenue from this public parking would not cover the cost of constructing it.

8. **Share available parking in private parking lots.** Parking capacity may be available in private business or residential parking lots during certain times of the day. This parking could be shared with businesses that require additional customer or employee parking during those periods when excess capacity is available. Shared parking in residential parking structures may require changes in the City's *Land Use Code* discussed in the next section.

9. **Market all parking management improvements.** The key to any of the above options is to educate customers about them. Individual businesses or MOPP could inform customers about parking availability and other parking programs.

Parking Code/Policy Revisions

Several parking code and parking policy revisions that would improve the neighborhood's parking conditions are suggested below. These revisions may help the neighborhood meet some of its other goals such as reducing housing costs, increasing density, and maintaining low automobile dependency.

1. **Allow off-site parking for residential uses in Lowrise and Midrise zones.** Off-site accessory-use parking is currently prohibited in Lowrise and Midrise areas, although it is allowed in Highrise areas. For many older buildings that are being redeveloped for housing, it may be infeasible or cost-prohibitive to provide parking for the residents on site. Therefore, many developers may apply for exemptions from the parking code. Allowing off-site accessory parking for residential uses may reduce the on-street parking impact of some residential developments.

2. **Allow "shared parking" for residential uses in Lowrise and Midrise zones.** Shared parking may be used to satisfy the parking requirements of two or more land uses. However, it does not currently apply to residential uses in Lowrise or Midrise zones. A shared-parking provision would provide developers with greater flexibility in satisfying their parking requirements by combining resources to create off-site/off-street parking garages for two or more residential developments. One example of this type of use would be for a developer who owns two sites in close proximity. Rather than constructing separate garages in each structure, a single garage in one of the structures that satisfies both parking requirements could be constructed. This would likely reduce overall parking costs, and may help satisfy parking requirements when it is not possible to construct on-site parking because of building age, site size, or other constraints.

3. **Increase the allowable distances between shared parking locations.** Shared parking is allowed among different land uses or properties so long as the uses are within 800 feet of each other. This was the average walking distance for parkers at off-street parking facilities reported by the New York City Bureau of Public Roads in a 1964 report. However, another well known study (*Urban Space for Pedestrians*, Pushkarev and Zupan, 1975) determined that the average walking distance between the office and parking was 1,800 feet. Many residents in the Pike/Pine neighborhood have stated that they use their automobiles fewer than two times per week and must park great distances from home in order to find low-cost or free parking spaces without time restrictions. Because existing on-street parking in the Pike/Pine neighborhood is so well utilized, it is unlikely that increasing the allowable distance between shared uses would cause additional parking to spillover onto neighborhood streets.

4. **Establish parking requirements that are appropriate for the Pike/Pine neighborhood.** Many of the parking requirements in the City's *Land Use Code* relate to the land use only and not to the neighborhood where that land use is located. For example, restaurants throughout the city require the same number of parking spaces per seat; however, a restaurant on Pine Street generates less demand for parking than the same size restaurant near Alki. Lower parking rates for residential uses may also be appropriate for developments located close to major transit lines and services. The City should adopt parking requirements that account for the characteristics of the Pike/Pine neighborhood and other urban villages.

Options to Encourage Non-Automobile Modes of Transportation

The following measures could be implemented to decrease the need to own an automobile or to use an auto when visiting the Pike/Pine neighborhood.

1. **Support transportation demand management.** Many employers and institutions in the neighborhood have existing transportation demand management plans that have been effective in reducing travel by single-occupant vehicles. The neighborhood should encourage continuation and expansion of these programs.

2. **Implement "car sharing" program. Car sharing** programs have been established in the Cities of Portland and Vancouver, B.C. They are essentially cooperatives through which members have access to jointly-owned vehicles. King County/Metro is currently evaluating car sharing programs; it may provide some seed money to establish such a program in the Seattle area.

3. **Improve access to rental cars.** Residents have stated that they would be able to live without a car if renting a car was more convenient (e.g., rental agency located in the neighborhood). Information disseminated by the neighborhood (or others) that compares the cost of car ownership to the occasional rental of a car may increase the attractiveness of rental cars.

4. **Improve transit service.** More frequent transit service and faster connections to destinations would likely reduce automobile travel and parking demand in the neighborhood.

5. **Improve/Increase Parking for Bicycles.** More bicycle racks and improved security for bikes could increase the attractiveness of bicycling in the neighborhood.

6. **Extend the ride-free zone up to Broadway.** Free transit service to and through the Pike/Pine and Broadway areas may reduce automobile travel and parking demand. Because King County/Metro is unlikely to fund an extension of the free service, costs of the extension may need to be paid by residents and/or businesses.

APPENDIX

PARKING SURVEY DATA

Pike/Pine Neighborhood Parking Inventory and Parking Demand

Surveys Performed on Thursday, May 20, 1998

		Number of Parking Spaces:														Weekday Demand	
Street	From/to	M2	M30	M15	S1	S2	S4	S1-RPZ	S2-RPZ	TLZ	PLZ	U	Other	Descriptor	Total (no LZ)	Daytime	Night
Hubble Place	Pike to 9th	13								2				M2	13	7	15
Minor Ave	Pike to Union								19		1			S2-RPZ	19	17	17
Minor Ave	Pine to Pike	16								1				M2	16	2	12
Boren Ave	Union to Pine													NP	0	0	0
Melrose Ave	Pike to Pine	14								5				M2	14	15	16
Melrose Ave	Pine to Yale													NP	0	0	0
Melrose Ave	Yale to Olive									1	1	13		U	13	14	14
Yale Ave	Melrose to end									1		11		U	11	11	11
Bellevue Ave	Union to Pike				8				12			6		S1/S2-RPZ/	26	17	17
Bellevue Ave	Pike to Pine								10	3	2	10		S2-RPZ/U	20	18	19
Bellevue Ave	Pine to Olive										1	16		U	16	20	17
Bellevue Ave	Olive Way to Olive St									4		3	1	U	3	5	4
Crawford Pl	Union to Pike											11		U	11	11	7
Summit Ave	Union to Pike									3	1	20		U	20	19	11
Summit Ave	Pike to Pine									2		24		U	24	19	11
Summit Ave	Pine to Olive									4		22		U	22	23	21
Belmont Ave	Union to Pike					5						14		S1/U	19	18	18
Belmont Ave	Pike to Pine	7								3		14		M2/U	21	19	22
Belmont Ave	Pine to Olive									3		37		U	37	37	39
Boylston Ave	Union to Pike											13		U	13	13	11
Boylston Ave	Pike to Pine									1	1	14		U	14	11	12
Boylston Ave	Pine to Olive									3		8		U	8	9	8
Harvard Ave	Union to Pike											6		U	6	6	4
Harvard Ave	Pike to Pine	20									1	3		M2	23	24	26
Harvard Ave	Pike to Olive					10								S2	16	16	16
Broadway	Madison to Union	25								1				M2	25	14	22
Broadway	Union to Pike	13	2							2				M2	15	12	16
Broadway	Pike to Pine	6	2							1				M2	8	9	7
Broadway	Pine to Olive	18	2											M2	20	19	20
Nagle Pl	Pine to Olive									2		12		U	12	11	13
Broadway Court	Madison to Seneca				9									S1	9	6	7
Broadway Court	Seneca to Union											10		U	10	9	8
10th Avenue	Madison to Seneca				8							3		S1/U	11	9	11
10th Avenue	Seneca to Union					5				3		23		S2/U	28	26	26
10th Avenue	Union to Pike									1		29		U	29	33	37
10th Avenue	Pike to Pine					12				2		28		S2/U	40	40	36

Pike/Pine Neighborhood Parking Inventory and Parking Demand

Surveys Performed on Thursday, May 20, 1998

Street	From/to	Number of Parking Spaces: M2	M30	M15	S1	S2	S4	S1-RPZ	S2-RPZ	TLZ	PLZ	U	Other	Descriptor	Weekday Demand: Total (no LZ)	Daytime	Night
11th Avenue	Madison to Union							9				4		S1-RPZ/U	13	15	11
11th Avenue	Union to Pike									1		44		U	44	45	43
11th Avenue	Pike to Pine				9					2	1	16		S1/U	25	26	26
11th Avenue	Pine to Olive					28				2		7		S2/U	35	36	31
12th Avenue	Union to Pke				3	15				2				S2	18	17	17
12th Avenue	Pike to Pine				9					4		13		S1/U	22	19	20
12th Avenue	Pine to Olive				8					2		14		S1/U	22	22	18
13th Avenue	Madison to Pike					3						5		S2/U	8	7	7
13th Avenue	Pike to Pine					11								S2	11	5	9
13th Avenue	Pine to Olive								11				5	S2-RPZ	11	9	10
14th Avenue	Pike to Pine					18				3	1	1		S2	19	9	12
14th Avenue	Pine to Olive								19	2		10		S2-RPZ/U	29	21	20
15th Avenue	Madison to Pine											9		U	9	9	8
15th Avenue	Pine to Olive								21	1				S2-RPZ	21	13	13
Olive Way	Melrose to Bellevue									1				NP	0	0	0
Olive Street	Bellevue to Summit										1	10		U	10	8	10
Olive Street	Summit to Belmont											10		U	10	10	10
Olive Street	Belmont to Boylston									1		8		U	8	9	8
Olive Street	Boylston to Harvard											12		U	12	13	12
Olive Street	11th to 12th																
Olive Street	12th to 13th								12					S2-RPZ	12	10	9
Olive Street	13th to 14th								13					S2-RPZ	13	13	12
Olive Street	14th to 15th								14	1				S2-RPZ	14	8	10
Pine Street	Minor to Melrose	5								1				M2	5	4	5
Pine Street	Melrose to Bellevue	8								1				M2	8	4	8
Pine Street	Bellevue to Summit	10								2		1		M2	11	5	10
Pine Street	Summit to Belmont	7								3				M2	7	3	9
Pine Street	Belmont to Boylston	11								3		1		M2	12	13	12
Pine Street	Boylston to Harvard	11								4				M2	11	10	13
Pine Street	Harvard to Broadway	4												M2	4	4	4
Pine Street	Broadway to 10th	2			12		2							S1	16	15	16
Pine Street	10th to 11th				7		0							S1/S4	17	15	17
Pine Street	11th to 12th				5		1							S1/S4	16	14	16
Pine Street	12th to 13th													S2-RPZ/S4	9	7	10
Pine Street	13th to 14th				11					1				S1	11	1	4
Pine Street	14th to 15th				12									S1	12	0	6

Pike/Pine Neighborhood Parking Inventory and Parking Demand

Surveys Performed on Thursday, May 20, 1998

		Number of Parking Spaces:													Weekday Demand	
Street	From/to	M2	M30	M15	S1	S2	S4	S1-RPZ	S2-RPZ	TLZ	PLZ	U	Other	Descriptor	Total (no LZ)	Daytime	Night
Pike Street	Hubble to Boren	4											8	M2/Carpool	12	10	4
Pike Street	Boren to Minor	11								1		1		M2	12	5	12
Pike Street	Minor to Bellevue	3	3							1		1		M2/M30	7	1	6
Pike Street	Bellevue to Summit	15												M2	15	8	16
Pike Street	Summit to Belmont	5	2	2						2				M2/M30	9	6	9
Pike Street	Belmont to Boylston	7		1							1			M2	8	6	8
Pike Street	Boylston to Harvard	7								3		4		M2/U	14	15	14
Pike Street	Harvard to Broadway	14		1						1				M2	15	10	15
Pike Street	Broadway to 10th	9		2										M2	11	7	13
Pike Street	10th to 11th				11							9		S1/U	20	14	19
Pike Street	11th to 12th				5	13				2				S1/S2	18	12	14
Pike Street	12th to 13th				9					5		9		S1/U	18	14	18
Pike Street	13th to 14th				8					1		7		S1/U	15	9	14
Union Street	Terry to Boren								7	2		13		S2-RPZ/U	20	20	18
Union Street	Boren to Minor								22	2				S2-RPZ	22	22	18
Union Street	Minor to Summit											12		U	12	12	12
Union Street	Summit to Belmont								7					S2-RPZ	7	9	9
Union Street	Belmont to Boylston								3		1	6		S2-RPZ/U	9	8	10
Union Street	Boylston to Harvard										1	6		U	6	7	6
Union Street	Harvard to Broadway											12		U	12	11	6
Union Street	Broadway to 10th				10							2		S1	12	8	9
Union Street	10th to 11th											18		U	18	18	16
Union Street	11th to 12th					7				1		9		S2/U	16	13	10
Seneca Street	Madison to 10th											10		U	10	10	5
Seneca Street	10th to Broadway Ct									1		3		U	3	3	2
Madison Street	Broadway to 10th					3	6							S2/S4	9	8	6
Madison Street	10th to 11th						14			1		4		S4/U	18	14	4
Madison Street	11th to 13th													NP	0	0	0
Madison Street	13th to 14th											9		U	9	8	7
Madison Street	14th to 15th				8					1				S1	8	1	1
Total All Spaces		265	11	6	152	136	47	9	191	113	16	653	15		1478	1264	1314
												Total All Parking Spaces=			1614		
Unrestricted Parking West of Harvard Ave												324					

Pike/Pine Neighborhood Parking Inventory and Parking Demand

Surveys Performed on Thursday, May 20, 1998

eet	From/to	Number of Parking Spaces: M2	M30	M15	S1	S2	S4	S1-RPZ	S2-RPZ	TLZ	PLZ	U	Other	Descriptor	Total (no LZ)	Weekday Demand Daytime	Night

Codes:

M2 = 2-hour Meter
M30 = 30-minute Meter
M15 = 15-minute Meter
S1 = 1-hour Signed Parking
S2 = 2-hour Signed Parking
S4 = 4-hour Signed Parking
S1-RPZ = 1-hour Parking except with RPZ Permit
S2-RPZ = 2-hour Parking except with RPZ Permit
TLZ = Truck Load Zone
PLZ = Passenger Load Zone
U = Unrestricted Parking (no signs or meters)
Other = Handicap parking, Carpool Parking, or Licensed-Vehicles Only Parking